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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,091	06/04/2001	Deborah Charych	1680.002	6042

7590 02/08/2005

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Intellectual Property Law Department
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EXAMINER

TRAN, MY CHAU T

ART UNIT	PAPER NUMBER
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1639

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

09/874,091

Applicant(s)

CHARYCH ET AL.

Examiner

MY-CHAU T TRAN

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 03 January 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: NONE.
Claim(s) objected to: NONE.
Claim(s) rejected: 1,60-73 and 79-93.
Claim(s) withdrawn from consideration: NONE.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
see continuation sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____.
13. ☐ Other: _____.


PADMASHRI PONNAIYER
PRIMARY EXAMINER

ADVISORY ACTION (CONT.)

Status of Claims

1. Applicant's amendment filed 1/3/2005 is acknowledged and entered. Claims 94-96 (withdrawn from further consideration as being drawn to a nonelected invention) have been canceled.
2. Applicant's response filed 1/3/2005 under 37 CFR 1.116 in reply to the final rejection has been considered but is not deemed to place the application in condition for allowance because applicant's arguments for the prior art rejections were considered but are deemed nonpersuasive for the following reasons:
3. Applicant's arguments directed to the rejection under 35 USC 103(a) as being unpatentable over Gustafson et al. (US Patent 5,478,527) and Pease et al. (US Patent 5,831,070) for claims 1, 60, 61, 63-66, 73, 79-80, 82-85, and 92-93; the rejection under 35 USC 103(a) as being unpatentable over Gustafson et al. and Pease et al. and further in view of Wagner et al. (US Patent 6,406,921 B1) for claims 62, and 81; and the rejection under 35 USC 103(a) as being unpatentable over Gustafson et al. and Pease et al. and further in view of Barrett et al (US Patent 5,482,867) for claims 67-72, and 86-91.
4. Applicant argues that "*Gustafson, whether alone or in combination with other cited references, lacks disclosure sufficient to render the presents claims obvious*". Because 1) Gustafson et al. lacks any disclosure of the general concept of fluorescent signal amplification; 2) Gustafson et al. lacks disclosure of the specific critical range cited in claim 92 and 93; and 3)

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“the combination of the cited art would not achieve the present invention since each of the protein-binding agent elements of the presently claimed invention comprises a peptidomimetic protein-binding segment configured to potentially bind a protein (see claims 1 and 73)”.

5. Applicant's arguments are not convincing since Gustafson et al. in combination with the other cited references would render the presents claims obvious.

1) Applicant's argument that Gustafson et al. lacks any disclosure of the general concept of fluorescent signal amplification is not convincing because the disclosure of Gustafson et al. wherein the purpose of silicon dioxide coating is to enhance the diffraction grating signal generated on an array is the general concept of fluorescent signal amplification. For, Gustafson et al. define the term “diffraction grating” as gratings that are formed in one or more immunological steps. That is the diffraction grating is formed directly by the conjugation of the non-light disturbing binding agent on the insoluble surface with a light disturbing analyte (i.e. a fluorescent signal from a labeled protein bound to an array), and the type of gratings include transmission amplitude gratings (i.e. amplifying a fluorescent signal) (col. 4, lines 41-49). Thus Gustafson et al. does disclose the general concept of fluorescent signal amplification.

2) Applicant's argument that Gustafson et al. lacks disclosure of the specific critical range of the silicon dioxide cited in claim 92 and 93, which is 200-900 Å, is not convincing because applicant's allegation regarding the criticality of range thickness of silicon dioxide in claim 92 and 93 do not rise to the level of factual evidence. Although applicant has indicated that support for this allegation is found in the present application disclosure, specifically pg. 21, lines 13-18, this disclosure does not provide factual

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support for applicant's allegation regarding the criticality of range thickness of silicon dioxide. Objective evidence, which ***must be factually supported*** by an appropriate affidavit or declaration, to be of probative value includes evidence of unexpected results... See, for example, *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984) ("It is well settled that unexpected results must be established by factual evidence"). Lastly, any differences between the claimed invention and the prior art may be expected to result in some differences in properties. The issue is whether the properties differ to such an extent that the difference is really unexpected. *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986) (In MPEP § 716.02). Additionally, to establish unexpected results over a claimed range, ***applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range.*** *In re Hill*, 284 F.2d 955, 128 USPQ 197 (CCPA 1960) (In MPEP § 716.02(d) (II)).

3) Applicant argument that "*the combination of the cited art would not achieve the present invention since each of the protein-binding agent elements of the presently claimed invention comprises a peptidomimetic protein-binding segment configured to potentially bind a protein (see claims 1 and 73)*" is not convincing because applicant support this assertion base of Gustafson et al. disclosure that a substantial proportion of the array elements are explicitly inactive, having specifically deactivated so that they do not bind in order to form the biograting, which is misinterpreted. The disclosure of Gustafson et al. refer to the patterning of the solid support, that is the surface of the solid support is pattern to provide areas with binding agents attached to the surface (zone of

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active binding agent) and areas without binding agents (zone of deactivated binding agent) (col. 6, line 64 to col. 7, line 7). Thus the disclosure of Gustafson et al. would not support applicant assertion that *“the combination of the cited art would not achieve the present invention since each of the protein-binding agent elements of the presently claimed invention comprises a peptidomimetic protein-binding segment configured to potentially bind a protein (see claims 1 and 73)”*. Additionally, the combination of Gustafson et al. and Pease et al. would produce the presently claimed protein-binding agents comprising the element of a peptidomimetic protein-binding segment as discussed in the Final Office Action.

Therefore, Gustafson et al. in combination with the other cited references would render the presents claims obvious, and the prior art rejections are maintained.

6. Additionally, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

7. Furthermore, applicant's arguments, see pg. 8, lines 8, with respect to the rejections under 35 USC 112 (first paragraph) for claims 1, 60-73, and 79-91 have been fully considered and are persuasive. The rejections under 35 USC 112 (first paragraph) of Claims 1, 60-73, and 79-91 have been withdrawn.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Chau T. Tran whose telephone number is 571-272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mct
February 3, 2005